

UNITED STATES PATENT OFFICE.

MARIA E. BEASLEY, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO WILLIAM ROBERT THOMPSON, OF SAME PLACE.

MACHINE FOR DRIVING HOOPS UPON CASKS.

SPECIFICATION forming part of Letters Patent No. 256,951, dated April 25, 1882.

Application filed November 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, MARIA E. BEASLEY, of the city and county of Philadelphia, and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Driving Hoops upon Casks; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof to enable those skilled in the art to make and use the said invention.

The object of this invention is to avoid some inconveniences and delays incident to the working of the machine set forth in my Letters Patent No. 245,050 by making this machine so as to readily adapt itself to any imperfections of form in the cask and hoops, and thus greatly accelerate its work.

In the working of the above-stated patented machine the unequal action of the driving-belts sometimes would move one driving-head faster than the other and displace the cask on the truck or saddle, and the variations in the angle at which the jaws rested upon hoops of unequal diameter hindered the driving of the hoops, and it rendered the machine uncertain in its action.

The nature of my invention consists in combination of appliances for more conveniently holding the casks to be hooped, so as to properly present them to the action of the hoop-driving machinery; in an adjustable arrangement of the hoop-driving arms and jaws, whereby the machine can be readily adapted to casks of different diameters; in a mechanism for automatically adapting the driving arms and jaws to imperfections or deviations in the casks from circular form; in an improved mechanism for holding the hoops in position so as to present them to the action of the driving apparatus; and in improved combinations of mechanism for driving hoops equally on both ends of the casks simultaneously.

I will now proceed to describe the mode of making and operating this invention, referring in so doing to the drawings annexed and the letters of reference marked thereon.

Figure 1 represents a plan of the machine. Fig. 2 represents a front elevation; Fig. 3, an end elevation. Figs. 4, 5, and 6 show modifications. Fig. 7 shows an enlarged central sec-

tion of the heads C and C'; and Fig. 8, an end view of the head C, showing the mechanism for expanding and contracting the driving apparatus to suit casks of different diameters; and the remaining figures illustrate parts of the machine in detail upon an enlarged scale.

A represents a truck, having V-shaped saddles (marked A') adjustable thereon in height so to support the cask B that its axis may coincide with the axis of the driving mechanism, hereinafter described. The height of the saddles A' being adjustable, they can be adapted to hold casks of different diameters in the proper central position to receive the hoops.

C and C' are two heads or standards fitted to slide lengthwise in guides A⁴, formed in a base, A³, and are moved simultaneously in opposite directions by a pinion, C², engaging in the racks C³ and C⁴, attached respectively to the heads C and C'. The pinion C² is propelled by a train of gear-wheels and pinions susceptible of being reversed in the direction of their motion by either shifting belts or clutches engaging in pulleys revolving in opposite directions, controlled by the hands of an attendant.

Upon each of the standards C and C' are placed a series of jaws or joints, D, arranged at equal distances in circles concentric to the axis of the cask B. In each of the jaws D is a claw or arm, E', provided with a tooth or shoulder, E², adapted to rest against the hoop H and press it toward the center of the cask B. The several jaws D are made radially adjustable by fitting through radial slots C⁵ in the heads C and C', the portions D' of the stems or shanks of the jaws D fitting in the slots C⁵ being rectangular, so as to prevent their turning, while they may slide lengthwise in the slot C⁵. The portion D² of the shank of the jaws D back of the head C and C' is cylindric, and passes through spiral or involute slots G' in the circular plates G, which are fitted so as to turn upon centers coincident with the axial line of the barrel. A nut, D³, fitting upon screw-threads D⁴ on the shanks of the jaws D, serves the double purpose of holding the jaws D against the heads C and C' and also the plates G against the back of the heads or standards